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EXAMINER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TOSHIFUMI KOMATSU,
KYLE JOHNSON, and WILLIAM CHARLES ULLAND

Appeal 2009-000639
Application 10/060,753
Technology Center 1700

Decided: December 17, 2009

Before ALLEN R. MACDONALD, *Vice Chief Administrative Patent Judge*,
CHARLES F. WARREN, and PETER F. KRATZ, *Administrative Patent
Judges*.

WARREN, *Administrative Patent Judge*.

DECISION ON APPEAL

Applicants appeal to the Board from the decision of the Primary Examiner finally rejecting claims 1-3, 5, 6, 9, 16, 17, 19, and 21-25 in the Office Action mailed October 30, 2006 (Office Action). 35 U.S.C. §§ 6 and 134(a) (2002); 37 C.F.R. § 41.31(a) (2007).

We affirm-in-part the decision of the Primary Examiner.

Claims 1 and 23 illustrate Appellants' invention of a photosensitive laminate structure and a method of forming a relief pattern in a photoresist substrate, respectively, and is representative of the claims on appeal:

1. A photosensitive laminate structure comprising at least:

a) an ink receptive, radiation transmissive layer, said ink receptive, radiation transmissive layer comprising a water-soluble, inkjet-receptive material transmissive to light of general wavelength 300 to 450 nm, containing at least 20 dry weight percent polyvinyl alcohol, and further containing calcium carbonate; and

b) at least one photosensitive resist layer;

wherein the photosensitive resist layer comprises a pressure sensitive adhesive composition having a Tg of less than about -40°C;

and wherein the photosensitive layer comprises from 1 to 40 weight percent of a polymeric photosensitive resin and from 30 to 98 weight percent of a polyvinyl acetate based upon the total dry weight of the photosensitive layer; and

wherein the ink receptive, radiation transmissive layer comprises less than 40 dry weight percent calcium carbonate.

23. A method of forming a relief pattern in a photoresist substrate, the method comprising:

a) providing a photosensitive laminate structure comprising at least an ink receptive, radiation transmissive layer comprising polyvinyl alcohol and inorganic particles, and at least one photosensitive resist layer formed into a single, photosensitive laminate;

b) printing a pattern on the ink receptive, radiation transmissive layer;

c) exposing the laminate to actinic radiation to modify the photosensitive resist layer; and

d) removing a portion of the photosensitive resist layer corresponding to the pattern formed on the ink receptive, radiation transmissive layer.

The Examiner relies upon the evidence in these references (Ans. 2):

Hoogmartens
Asano

5,922,506
6,106,992

Jul. 13, 1999
Aug. 22, 2000

Appellants request review of the ground of rejection under 35 U.S.C. § 103(a) advanced on appeal by the Examiner: claims 1-3, 5, 6, 9, 17, 19, and 21-25 over Hoogmartens in view of Asano. Br. 9; Ans. 3.

Appellants do not request review of and/or argue the ground of rejection of claim 16 under 35 U.S.C. § 112, first paragraph, written description requirement, set forth in the Office Action. Br. 9 and 10; Office Action 2. *See* 37 C.F.R. § 41.37(c)(1)(vi) and (vii) (2007). Indeed, Appellants, in setting forth the “Status of the Claims,” state that “[c]laim 16 is hereby cancelled without prejudice,” and that only the ground of rejection of “pending claims 1-3, 5-6, 9, 17, 19, [sic] 21-25 is appealed.” Br. 5. *See* 37 C.F.R. § 41.37(c)(1)(iii) (2007). Appellants also correctly state that Claims Appendix does not include a copy of claim 16. Br. 5 and 18. *See* 37 C.F.R. § 41.37(c)(1)(viii) (2007).

The Examiner does not argue that Appellants’ Brief fails to comply with the requirements for a brief. Ans. 2. *See* 37 C.F.R. § 41.37(d) (2007). The Examiner also does not advance the ground of rejection of claim 16 under 35 U.S.C. § 112, first paragraph, written description requirement, on appeal. *See generally* Ans.

We point out that Appellants’ expressed direction to cancel claim 16 contained in the Brief does not constitute an amendment canceling claim 16. 37 C.F.R. § 41.37(c)(2) (2007). Thus, claim 16 is pending. By failing to request review of and argue the ground of rejection of claim 16 under 35 U.S.C. § 112, first paragraph, written description requirement, in the Brief, Appellants have waived any argument which could have been made in this respect.

Accordingly, on this record, Appellants have in effect withdrawn the appeal with respect to pending claim 16. The record does not show that the Examiner has cancelled claim 16. *See* MPEP § 1215.03 (8th ed., Rev. 3, August 2005) (“The withdrawn claims will be cancelled from an application by the direction of the examiner at the time of the withdrawal of the appeal as to those claims.”). Thus, the Examiner shall cancel claim 16 upon the disposition of this appeal. MPEP § 1215.03 (8th ed., Rev. 3, August 2005).

Appellants group the claims on appeal as product claims 1-3, 5, 6, 9, 17, 19, 21, and 22, and method claims 23-25. Br. 9, 10, and 13. Thus, we decide this appeal based on claims 1 and 23. 37 C.F.R. § 41.37(c)(1)(vii) (2007).

Opinion

Product Claim 1

The Examiner submits that one of ordinary skill in this art would have been led by Asano to include calcium carbonate as a filler in the temporary protective layer, which can comprise polyvinyl alcohol, on top of the photosensitive layer of Hoogmartens’ imagining element in the reasonable expectation of, among other things, reducing cost as disclosed by Asano, thus arriving at an imagining element which has a photosensitive laminate structure having a layer comprising polyvinyl alcohol and calcium carbonate encompassed by product claim 1. Ans. 3-5, citing, among other things, Hoogmartens col. 10, ll. 62-67, and Asano col. 14, ll. 55-67.

We agree with the Examiner’s findings of fact.

We are of the view the Examiner has established that it reasonably appears the imaging element having a layer comprising polyvinyl alcohol

and calcium carbonate suggested to one of ordinary skill in this art by the combined teachings of Hoogmartens and Asano is identical or substantially identical to the claimed photosensitive laminate structure having a layer containing polyvinyl alcohol and calcium carbonate encompassed by claim 1 even though, as Appellants point out, the combination of references does not teach or suggest that such a layer has the property of “ink receptive” as set forth in claim 1. *See* claim 1; Spec. 9:16-17; Br. 10-13. Thus, Appellants’ burden is to patentably distinguish the claimed photosensitive laminate structure over the combined teachings of Hoogmartens and Asano by argument and/or objective evidence, even though the ground of rejection is under § 103(a). *See, e.g., In re Spada*, 911 F.2d 705, 708-09 (Fed. Cir. 1990);¹ *In re Best*, 562 F.2d 1252, 1254-56 (CCPA 1977);² *In re Skoner*, 517 F.2d 947, 950-51 (CCPA 1975)

¹ The Board held that the compositions claimed by Spada “appear to be identical” to those described by Smith. While Spada criticizes the usage of the word “appear,” we think that it was reasonable for the PTO to infer that the polymerization by both Smith and Spada of identical monomers, employing the same or similar polymerization techniques, would produce polymers having the identical composition.

Spada, 911 F.2d at 708.

² Where, as here, the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product. Whether the rejection is based on ‘inherency’ under 35 U.S.C.

(“Appellants have chosen to describe their invention in terms of certain physical characteristics Merely choosing to describe their invention in this manner does not render patentable their method which is clearly obvious in view of [the reference].” (citation omitted)); *see also, e.g., In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) (““On appeal to the Board, an applicant can overcome a rejection by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.””) (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

We considered the totality of the record in light of Appellants’ arguments, and based thereon, we are of the opinion Appellants have not carried their burden. *See, e.g., In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992) (“After evidence or argument is submitted by the applicant in response, patentability is determined on the totality of the record, by a preponderance of evidence with due consideration to persuasiveness of argument.”) (citing, *inter alia*, *Spada*, 911 F.2d at 707 n.3).

We cannot subscribe to Appellants’ position that Hoogmartens and Asano must teach that a layer of an imaging element or of a photoresist film disclosed in these references, respectively, is “ink receptive” in order to teach a layer comprising polyvinyl alcohol and calcium carbonate as specified in claim 1. Br. 10-13. Indeed, Appellants do not argue that one of

§ 102, on ‘prima facie obviousness’ under 35 U.S.C. § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO’s inability to manufacture products or to obtain and compare prior art products. (footnote and citations omitted).

ordinary skill in this art would not use Asano's calcium carbonate filler in Hoogmartens' layer comprising polyvinyl alcohol for the reason set forth in Asano as relied on by the Examiner. *See* Br., e.g., 12:3-10. On this record, it is sufficient that the disclosures of Hoogmartens and Asano provide motivation to one of ordinary skill in this art to combine their teachings to arrive at a layer comprising polyvinyl alcohol and calcium carbonate even though that motivation is not to provide an "ink receptive" function in a layer comprising polyvinyl alcohol and calcium carbonate as claimed. *See, e.g., KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007), (*quoting Kahn*, 441 F.3d at 988) ("[A]nalysis [of whether the subject matter of a claim is obvious] need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ."); *In re Kemps*, 97 F.3d 1427, 1430 (Fed. Cir. 1996), *citing In re Dillon*, 919 F.2d 688, 693 (Fed. Cir. 1990) (*en banc*) (motivation in the prior art to combine the references does not have to be identical to that of applicant to establish obviousness); *In re Beattie*, 974 F.2d 1309, 1312 (Fed. Cir. 1992) ("As long as some motivation or suggestion to combine the references is provided by the prior art taken as a whole, the law does not require that the references be combined for the reasons contemplated by the inventor."); *In re Kronig*, 539 F.2d 1300, 1304 (CCPA 1976) (The reference provides "ample motivation to add water in order to increase product yields, and we do not view the rejection as deficient merely because appellants allege a different advantage resulting from the addition of water. Obviousness under

Best, 562 F.2d at 1254-56.

35 U.S.C. § 103 does not require absolute predictability, and it is sufficient here that [the reference] clearly suggests doing what appellants have done.” (citations omitted)).

Furthermore, the fact that the combined teachings of Hoogmartens and Asano do not describe the “ink receptive” property of a layer comprising polyvinyl alcohol and calcium carbonate does not establish the patentability of claim 1. *See, e.g., Skoner*, 517 F.2d at 950-51. Indeed, it is well settled that Appellants’ discovery of a new property of a product taught in the prior art will not, without more, be dispositive of the nonobviousness of the claimed product over the known product. *See, e.g., Spada*, 911 F.2d at 707, and cases cited therein; *Skoner*, 517 F.2d at 950-51.

Accordingly, based on our consideration of the totality of the record before us, we have weighed the evidence of obviousness found in the combined teachings of Hoogmartens and Asano with Appellants’ countervailing evidence of and argument for nonobviousness and conclude, by a preponderance of the evidence and weight of argument, that the claimed invention encompassed by appealed claims 31-3, 5, 6, 9, 16, 17, 19, 21, and 22 would have been obvious as a matter of law under 35 U.S.C. § 103(a).

Method Claim 23

We do not reach the same determination with respect to method claim 23 over the combined teachings of Hoogmartens and Asano. On this record, we agree with Appellants that the applied references contain no disclosure which would have suggested to one of ordinary skill in this art a method of forming a relief pattern in a photosensitive laminate structure having an

“ink receptive” layer comprising polyvinyl alcohol and calcium carbonate, which includes the step of “printing a pattern on the ink receptive” layer. Br. 13-14. The Examiner does not address the claimed method encompassed by claim 23. *See generally* Ans.

Accordingly, we reverse the ground of rejection of method claims 23-25 under 35 U.S.C. § 103(a) over the combined teachings of Hoogmartens and Asano.

The Primary Examiner’s decision is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(a)(iv).

AFFIRMED-IN-PART

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